

NR 7054051

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the Application of )  
Jean M. Clement )  
on METHOD FOR PRODUCING PULP ) Examiner:  
FROM PRINTED UNSELECTED ) Group Art Unit:  
WASTE PAPER ) (Our Docket No. 2605-01-1-1REI)  
Serial No.: )  
Filed: )

Hartford, Connecticut, April 24, 1993

DECLARATION

As the below-named inventor, I hereby state that:

My residence, post office address and citizenship are  
as stated below next to my name;

I believe I am the original, first and sole inventor of  
the invention disclosed and claimed in original United States  
Letters Patent No. 4,780,179 and in the hereto attached  
specification and for which invention I solicit a reissue of  
United States Letters Patent No. 4,780,179;

I hereto state that I have reviewed and understand the  
contents of the hereto attached specification, including the  
claims, as amended by any amendment specifically referred to in  
this declaration;

I acknowledge the duty to disclose information I am  
aware of and which is material to the examination of this

application in accordance with Title 37, Code of Federal Regulations Sec. 1.56(a);

I hereby claim foreign priority benefits under Title 35, United States Code, Sec. 119 of Italian Patent Application Serial No. 67514 A/82, filed April 30, 1982;

No application for patent or inventor's certificate on this invention has been filed by me or my legal representatives having a filing date before that on which priority is claimed;

I hereby claim the benefit under Title 35, United States Code, Sec. 120 of United States Reissue Patent Application Serial No. 600,012, filed on October 18, 1990, now pending, United States Patent Application Serial No. 482,623, filed on April 6, 1983, now abandoned, and United States Patent Application Serial No. 822,943, filed on January 27, 1986, now the aforesaid original United States Letters Patent No. 4,780,179;

I believe the said United States Letters Patent No. 4,780,179 is wholly or partially invalid or inoperative by reason of my claiming more or less than I had a right to claim;

The excesses or insufficiencies of the original claims are distinctly specified as follows:

Original United States Letters Patent No. 4,780,179 discloses a method for treating a mixture of printed and contaminated waste paper in order to produce a pulp for use in the manufacture of paper and paper boards. Such waste paper is

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contaminated not only with printing ink, but also with non-ink contaminants such as binders, hot melts, plastics and other contaminants of this type generally referred to by those skilled in the art as "stickies."

An important aspect of the disclosed invention is the removal of the non-ink contaminants from a first aqueous, fibrous suspension of the waste paper after the first fibrous suspension is formed but prior to detaching the printing ink from the surface of the fibers. According to this aspect of the invention, only after the non-ink contaminants are removed is the ink detached from the fibers and dispersed into the suspension. This aspect of the invention is described in claims 1-18 of original United States Letters Patent No. 4,780,179.

On April 22, 1993, I met personally with the attorneys of record in this case and in parent application Serial No. 600,012 for the purpose of discussing the Oral Hearing docketed in the parent application for April 28, 1993 before the Patent Office Board of Appeals and Interferences. This was the first time I was able to meet personally with my U.S. attorneys, and the meeting provided an opportunity for a detailed review of the technical aspects of the invention and the manner in which the invention distinguishes over the prior art, without the disadvantages of communicating in writing and in a foreign language through my attorney in Italy.

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As a result of these discussions, my U.S. attorneys determined that original claims 1-18 of U.S. Patent No. 4,780,179 were unduly limited in view of the teachings of the disclosure and the prior art. In particular, claim 1, step (a) recites forming the first fibrous suspension at room temperature by applying specific mechanical energy lower than 50 KW. H/Ton. These limitations are, however, inconsistent with the invention in its broadest terms. As set forth in the specification at col. 6, lines 15-19, the important feature of the invention here is to keep the temperature of the stock as low as possible so that the low melting point contaminants will remain rigid and will not extrude through the slotted screens. Those skilled in the art will recognize that the first fibrous suspension can be formed under any combination of heat and mechanical energy as long as the temperature of the stock is kept below the melting point of the non-ink contaminants and the non-ink contaminants are released from the surface of the paper.

Claims 1-18 are also unduly limited with respect to the temperature, mechanical energy and pH conditions set forth in steps (c) and (d) of claim 1. As taught in the specification at col. 6, lines 29-34, the parameters of steps (c) and (d) are selected to insure that the ink vehicles are softened and the ink particles are detached from the surface of the fibers and dispersed into the second fibrous suspension. Those skilled in the art well-know that the temperature, mechanical energy and pH

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conditions under which ink detaching and dispersion take place depend on a number of factors including the nature of the ink contaminants and the types of deinking chemicals employed. Once a person skilled in the art is appraised of the factors affecting the softening, detaching and dispersal steps, it is a simple matter to select the process parameters that will insure that these steps are properly carried out.

The claims are entitled to the scope set forth in the attached Preliminary Amendment in view of the prior art of record. In particular, claims 49-52 patentably distinguish over Burns, the most pertinent prior art and the primary reference relied on by the Examiner during the prosecution of application, Serial No. 822,943, ('943 application) which matured into U.S. Patent No. 4,780,179.

Burns discloses a deinking process in which he attempts to remove both the printing ink and the non-ink contaminants at the same time. As noted in the declaration submitted by Mr. Burns during the prosecution of the '943 application and as acknowledged by the Examiner in the Notice of Allowability issued in that case, Burns requires that the temperature of the pulp in the dispersal unit be raised above the melting point of the non-ink contaminants while those contaminants are still present together with the printing ink. Mr. Burns acknowledges in his declaration that such a system could not possibly achieve the brightness obtained by the use of the method taught by the present invention.

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The above-stated errors relied upon as the basis for this reissue application occurred prior to 1987 during the early prosecution of the '943 application, which matured into original United States Letters Patent No. 4,780,179, and its parent Application Serial No. 482,623, filed on April 6, 1983. I did not then appreciate, and my U.S. attorneys did not explain to me, that the process conditions under which the first fibrous suspension is formed and the softening, detaching and dispersing steps are carried out could be made more definite without reciting the specific parameters contained in original claim 1.

The lack of appreciation on my part was due to my very limited understanding of U.S. patent law and the difficulties I had in explaining the invention to my U.S. attorneys through written communications requiring translation from Italian to English or vice versa by my Italian attorney. My U.S. attorneys failed to advise me as to the proper claim scope to which I was entitled because they simply did not understand all of the technical aspects of the invention. The above errors were confirmed only after I had an opportunity to thoroughly discuss the invention face to face with my U.S. attorneys on April 22, 1993. For example, it was only during those discussions that my attorneys realized for the first time that the mechanical energy applied during the formation of the first fibrous suspension and the softening, detaching and dispersal steps also adds heat to the system. Therefore, this factor must always be taken into

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account when deciding on the overall conditions under which these steps are carried out. Further, my attorneys failed to realize until this time that many different types of ink are present in the various waste papers treated and that those skilled in the art recognize that these inks require varying process conditions for softening, detachment and dispersion.

After the above-noted errors were confirmed during my discussions with my U.S. attorneys, it was decided that these errors could only be corrected by pursuing a continuation of reissue Application, Serial No. 600,012. I and my attorneys then immediately proceeded with the filing of this continuation application.

The above-identified errors arose without any deceptive intention on my part. I hereby appoint DONALD K. HUBER, Registration No. 18,686; THEODORE R. PAULDING, Registration No. 19,294; JOHN C. HILTON, Registration No. 22,965; FREDERICK J. HAESCHE, Registration No. 24,529; JOHN C. LINDERMAN, Registration No. 24,420; JACK M. PASQUALE, Registration No. 31,052, J. KEVIN GROGAN, Registration No. 31,961; JOSEPH S. KENTOFFIO, Registration No. 33,189, JOSEPH F. FISCHETTI, 32,656; F. TYLER MORRISON III, Registration No. 36,220 and MARK D. GIARRANTANA, Registration No. 32,615; all of the firm MCCORMICK, PAULDING & HUBER, Cityplace II, 185 Asylum Street, Hartford, Connecticut 06103-4102, telephone no. (203) 549-5290, as my attorneys to prosecute this application, to make alterations and amendments

*Joe*

therein, to receive the patent and all correspondence relating to this application, and to transact all business in the U.S. Patent and Trademark Office connected therewith, and the said attorneys are hereby given full power of substitution and revocation.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Jean Marie Clement 1-00  
Full name of sole or first  
Inventor

Jean Marie Clement  
Inventor's signature

X 24 April, 1993 France  
Date Citizenship

Via Montebello 75 Forze Armate, 26  
Milano, Italy ITX  
Residence Address

same as above  
Post Office Address

*Jac*